

PTO-1390 (Rev. 07-2005)
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| • | RANSMITTAL LETTER TO | ATTORNEY'S DOCKET NUMBER | | | | | |
|---|--|--|---|--|--|--|--|
| DESIGNATED/ELECTED OFFICE (DO/EO/US) | | | U.S. APPLICATION NO. (If known, see 37 C5R 1.5) | | | | |
| | NCERNING A SUBMISSIC | | Not yet assigned 5 / 0 6 L 7 | | | | |
| | TIONAL APPLICATION NO. FR2004/050511 | INTERNATIONAL FILING DATE October 19, 2004 | PRIORITY DATE CLAIMED October 31, 2003 | | | | |
| | TITLE OF INVENTION Method for converting hydrogenous gaseous flows arising from chemical reactor units using hydrogen | | | | | | |
| | APPLICANT(S) FOR DO/EO/US L'Air Liquide, Société Anonyme à Directoire et Conseil de Surveillance pour l'Etude et l'Exploitation des Procédés Georges Claude | | | | | | |
| Applican | t herewith submits to the United Sta | ates Designated/Elected Office (DO/EC | /US) the following items and other information: | | | | |
| 1. 🔀 | 1. X This is a FIRST submission of items concerning a submission under 35 U.S.C. 371. | | | | | | |
| 2. 🗀 | This is a SECOND or SUBSEQUENT s | ubmission of items concerning a submission | n under 35 U.S.C. 371. | | | | |
| 3. | This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below. | | | | | | |
| 4. | The US has been elected (Article 31). | | | | | | |
| 5. | A copy of the International Application | • | | | | | |
| | | only if not communicated by the Internation | al Bureau). | | | | |
| | b has been communicated by the International Bureau. | | | | | | |
| 6. 🛛 | c. is not required, as the application was filed in the United States Receiving Office (RO/US). | | | | | | |
| 6. (ZX) | NZ) | | | | | | |
| | | | | | | | |
| 7. | b. L. has been previously submitted under 35 U.S.C. 154(d)(4). Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3)) | | | | | | |
| | | red only if not communicated by the Internat | | | | | |
| | b. have been communicated by the International Bureau. | | | | | | |
| | c. have not been made; however, the time limit for making such amendments has NOT expired. | | | | | | |
| | d. have not been made and will not be made. | | | | | | |
| 8. | An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)). | | | | | | |
| 9. | An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)). | | | | | | |
| 10. | An English language translation of the Article 36 (35 U.S.C. 371(c)(5)). | e annexes of the International Preliminary E | xamination Report under PCT | | | | |
| Items 11 to 20 below concern document(s) or information included: | | | | | | | |
| 11. | An Information Disclosure Statement | under 37 CFR 1.97 and 1.98. | | | | | |
| 12. | An assignment document for recording | g. A separate cover sheet in compliance wit | h 37 CFR 3.28 and 3.31 is included. | | | | |
| 13. 🔀 | A preliminary amendment. | | · | | | | |
| 14. | An Application Data Sheet under 37 C | CFR 1.76. | | | | | |
| 15. | A substitute specification. | | | | | | |
| 16. | A power of attorney and/or change of address letter. | | | | | | |
| 17. | A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821- 1.825. | | | | | | |
| 18. | | national Application under 35 U.S.C. 154(d)(| | | | | |
| لــا .19 | A second copy of the English languag | e translation of the international application | under 35 U.S.C. 154(d)(4). | | | | |

This collection of information is required by 37 CFR 1.414 and 1.491-1.492. The information is required to obtain or retain a benefit by the public, which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 15 minutes to complete, including gathering information, preparing, and submitting the completed form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Completes, P.O. Box 1450, Alexandria, VA 22313-1450, DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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| U.S. APPLICAT | rion no. (if known signed / 5 | 37 CFR 1.5 | PCT/FR2004/0 | | Serie 6144 | KET NUMBER | |
|---|--|--|----------------------------------|--------------------|------------------------|--------------|--|
| 20. Other items or information: | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| The foll | owing fees have b | een submitted | | | CALCULATIONS | PTO USE ONLY | |
| 21. Sasic national fee (37 CFR 1.492(a)) | | | | \$300 | \$ 300 | | |
| 22. 🛛 Exan | | | | | | | |
| by IPEA | nion prepared by IS US indicates all cl ns | \$ 200 | | | | | |
| If the written opin | | | | | | | |
| Search fee (37 C | FR 1.445(a)(2)) h | as been paid on | the international application to | the USPTO as an | \$ | | |
| International Sea | rch Report prepar | ed by an ISA oth | ner than the US and provided to | the Office or | | | |
| | | | | | 500 | | |
| Additional to | TOTAL OF 21, 22 e for specification | 1,000 | | | | | |
| | e listing in complia | | ļ | | | | |
| The fee is | c medium) (37 CF s \$250 for each ad | R 1.492(J)). ditional 50 shee | ts of paper or fraction thereof. | - | | | |
| Total Sheets Extra Sheets | | Number of each additional 50 or fraction RATE thereof (round up to a whole number) | | | | | |
| 24 - 100 = | O /50 = | | 0 | x \$250 | s 0 | | |
| Surcharge of \$130.00 for furnishing any of the search fee, examination fee, or the oath or declaration after the date of commencement of the national stage (37 CFR 1.492(h)). | | | | | | | |
| CLAIMS | NUMB | ER FILED | NUMBER EXTRA | RATE | \$ | | |
| Total claims | | | 0 | x \$ 50 | \$ 0 | | |
| Independent clai | | · · · · · · · · · · · · · · · · · · · | 0 | × \$200 + \$360 | \$ 0 | | |
| MULTIPLE DEP | ENDENT CLAIM(S | \$ | | | | | |
| TOTAL OF ABOVE CALCULATIONS = \$ Applicant claims small entity status. See 37 CFR 1.27. Fees above are reduced by ½. | | | | | | <u> </u> | |
| SUBTOTAL = \$ | | | | | | | |
| Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(i)). | | | | | | | |
| | | \$ | | | | | |
| Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property + | | | | | | | |
| TOTAL FEES ENCLOSED = \$ | | | | | | | |
| | | | | | Amount to be refunded: | \$ | |
| | | | | | Amount to be charged | \$ 1,130.00 | |

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| , a. A check in the amou | int of \$ to c | over the above fees is enclosed. | | | |
|--|---|---|--|--|--|
| b. A Please charge my D | Please charge my Deposit Account No. 01-1375 in the amount of \$\frac{\\$1,130.00}{}\$ to cover the above fees. A duplicate copy of this sheet is enclosed. | | | | |
| | The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 01-1375. A duplicate copy of this sheet is enclosed. | | | | |
| | Fees are to be charged to a credit card. WARNING: Information on this form may become public. Credit card Information should not be included on this form. Provide credit card information and authorization on PTO-2038. | | | | |
| NOTE: Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the International Application to pending status. | | | | | |
| SEND ALL CORRESPONDENCE TO: Elwood Haynes IP Dept. Air Liquide 2700 Post Oak Blvd., Suite 1800 Houston, TX 77056 | | SIGNATURE Elwood Haynes NAME 55,254 REGISTRATION NUMBER | | | |

IAP12 Rec'd PCT/PTO 24 APR 2006

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.:

Not yet assigned

Applicants:

François-Xavier HAULLE, et al.

Filed Internationally:

October 19, 2004

US National:

Herewith

Title:

METHOD FOR CONVERTING HYDROGENOUS GASEOUS FLOWS ARISING FROM CHEMICAL REACTOR UNITS USING

HYDROGEN

TC/A.U:

Unknown

Examiner:

Unknown

Docket No.:

Serie 6144

Customer No.:

000040582

CERTIFICATE OF MAILING BY EXPRESS MAIL

Mail Stop Patent Application Commissioner for Patents P. O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

I hereby certify that the following documents, which are attached, are being deposited, under 37 CFR 1.10, with the United States Postal Service "Express Mail Post Office to Addressee" service as **Express Mail No. EV 856933835 US** in an envelope addressed to: Mail Stop Patent Application, Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450, on **April 24, 2006**.

- 1. A copy of International Publication WO 2005/042640;
- 2. English translation of International Application PCT/FR2004/050511;
- 3. Preliminary Amendment;
- Transmittal Under 35 USC 371 (PTO Form 1390) Fee Sheet (in duplicate);
 and

5. Postcard.

Respectfully submitted,

Diana Guzman

Date: April 24, 2006

Air Liquide 2700 Post Oak Boulevard, Suite 1800 Houston, Texas 77056 (713) 624-8973